

MONTANA AERONAUTICS COMMISSION



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1964 PILOT REGISTRATION



Governor Babcock is presented with his 1964 pilot registration by Jack Wilson, MAC Safety and Education Officer.

1964 Pilot Registration is coming in at the rate of approximately 50 per day—however, we have a long way to go!! Following are a few reminders regarding your Montana registration:

1. Please include your \$1.00 registration fee with your registration form.
2. Do not send advance fees—\$1.00 for 1964 registration only.
3. Check that your FAA Certificate Number and your total hours are listed in the designated boxes on your form card.
4. Please fully complete the form card before forwarding it to the Montana Aeronautics Commission.
5. Fold the card if necessary but

please DO NOT CUT OR TRIM THE CARD.

6. **REMEMBER**—if you wish to be placed on the 1964 mailing list—have your registration in to the Commission by the 29th of February.

REGISTER TODAY!!

BOZEMAN'S FLYING CO-OP TO HOST NIFA MEET

The first National Intercollegiate Flying Association meet to be held in the west is slated for Montana State College, May 14, 15 and 16, with the MSC Student Flying Co-operative as host.

The meet, always held at a college or university that has a student flying club, will attract student flyers from all over the United States, according to Wayne Sand of Valier, president of the Montana State College club.

Advance registration suggests that some clubs will be flying 2,000 miles or more to take part in the first meet for the Rocky Mountain area. Many of these clubs have never flown in mountainous country. Sand says this has proved an added attraction and that as many as 300 students will attend if weather permits.

Among the contests scheduled are: power-on and power-off spot landings, bomb dropping and navigation. All contests are conducted under the National Intercollegiate Flying Association rules with strict observ-

ance of the safety regulations of the Federal Aviation Administration.

The National Intercollegiate Flying Association was formed to promote flying by college students to teach safety in flying and to stage annual meets in various parts of the country to stimulate precision flying.

The Montana Aeronautics Commission, The Federal Aviation Administration, the Bozeman Chamber of Commerce and other flying organizations will assist the local club in conducting the meet. All flight events will be at Gallatin Field.

Officers of the MSC Flying Club are Don Bjork, Ennis, vice president; Dan Biggerstaff, Denton, secretary; Steven Erban, Mohall, N. D., treasurer; and Al Koelzer, Bozeman, fifth director.

The Montana Aeronautics Commission is pleased to assist and coordinate with the MSC Student Flying Co-op by aiding in the care and handling of the large number of aircraft expected; by supplying the club with portable tie-down equipment and provide advisory assistance by MAC personnel.

We wish to extend our sincere wishes for a successful meet and express our admiration of the MSC Student Co-op for the undertaking of a national event of this size.

DO cancel the flight that may be hazardous.

DON'T become a "pusher" or you might become a "statistic."

Official Monthly Publication
of the
**MONTANA AERONAUTICS
COMMISSION**

Box 1698
Helena, Montana

Tim Babcock, Governor

Charles A. Lynch, Director

Herb Jungemann, Chairman
Gordon Hickman, Vice Chairman
Walter Hope, Secretary
E. B. Cogswell, Member
Clarence R. Anthony, Member
Carl W. (Bill) Bell, Member
Jack R. Hughes, Member



DIRECTOR'S COLUMN



"SOME WINS, SOME LOSSES"

During the month of January, the Montana Aeronautics Commission received, as many of you did, notification that the FAA was evaluating from an airspace acceptability standpoint, the proposal to decommission two low frequency radio facilities, and 35 airway beacons. Following official action of the Commission at the January meeting in Great Falls, the office staff circularized the entire industry through the mailing lists of registered pilots and operators in the State of Montana, protesting the decommissioning of these facilities. Apparently, the response to the FAA at Regional and Washington levels and to our Congressmen, has been extensive. I am very pleased to advise that a telephone call from the Director of the Central Region in Kansas City, on Friday, January 17th, indicated the basic intent of the proposal had been in the form of inquiry to specifically draw comment from the industry relative to the utility and value of these facilities. Apparently the response had been such that the entire lot of proposals effecting all 35 airway beacons had been withdrawn from airspace evaluation at this time. **SO, WE WON A POINT!**

However, there is still pending before the agency, proposals to de-

commission the low frequency homer at Livingston, and the low frequency range at Whitehall. These are covered by case numbers **NR-CE-63-387** and **388**. In addition to this, we have a very critical item in the form of the low frequency facility at Lewistown which was circularized previously without sufficient comment being given to the FAA. Consequently, the shutdown of this facility was effected, at least temporarily, on January 17th. This had been covered previously in case number **NR-CE-63-335**, with the approval effective December 6, 1963. At that particular time few comments had been received by the Montana Aeronautics Commission from the industry. **THESE ITEMS ARE SERIOUS — YOUR OPINIONS MUST BE KNOWN!**

Primarily, through the efforts of our Congressman, final disassembly on this facility has been stopped pending local review of the situation and the informal airspace conference held in Kansas City, Wednesday, January 22nd. Prior to that date, the Montana Aeronautics Commission has gone strongly on record protesting the decommissioning of these facilities and through all this action, we have been very ably assisted in the Governor's protest direct to the Administrator of the Federal Administration Agency.

At any time these proposals are initially directed to the industry, the Montana Aeronautics Commission is vitally concerned with receiving your opinions at the earliest possible moment, otherwise, **HEREIN LIES OUR LOSS**. The following are the comments submitted by the Montana Aeronautics Commission to the Federal Aviation Agency on the proposed decommissioning of L/MF radio facilities at Lewistown, Livingston and Whitehall:

Dear Mr. Beardslee:

I want to take this opportunity to thank you sincerely for your personal telephone call Friday, advising me of the withdrawal of the pending cases which were up for evaluating the airspace acceptability of the proposal to decommission 35 airway beacons here in the State of Montana.

We have, however, three pending cases here in our State which are quite vital to us, and upon which I would like to comment, and which are listed as follows:

NR-CE-63-335 — Lewistown, Montana — Decommission L/MF RR.
NR-CE-63-387 — Whitehall, Montana — Decommission L/MF RR.
NR-CE-63-388 — Livingston, Montana — Decommission L/MF RR.

First of all, I would like to herewith make it plain that I have no strong concern relative to the old four course ranges. I realize that they are costly to maintain, and have little value at all for more than an ordinary homing beacon. This, of course, brings up the next proposal which I feel would be very logical, that due to cost of maintenance and cost of operations that these ranges be converted to "H" markers.

My concern for low frequency homing devices as far as the western mountainous half of Montana is concerned, is of course, based on the extreme limitations that Omni equipment has in mountainous areas for flights under IFR altitudes. As you and I both realize, the Omni station has a limitation at low elevations, even in flat country. This, of course, causes a complete blackout of both directional signal and voice in mountain areas. Our mountainous areas are high enough and still maintain a sufficiently large number of low elevation passes as to cause low level VFR day or night operations to be entirely safe provided some aid is given through low frequency navigational equipment and the allied voice channels connected thereto. This is still a very important factor in Western Montana.

I have recently, however, had another experience which points up the impracticability of depending on the standard broadcast industry for the use of low frequency ADF or direction finding equipment.

First of all, let me state that a survey conducted by my office during 1963 covering new aircraft and new radio equipment sales here in the State of Montana for a 12 month period from July 1, 1962 indicated from the answers received from the active distributors and dealers for Piper, Beech and Cessna, and an independent electronics firm specializing in the sale and installation of electronic equipment only, that it appears that almost 92 per cent of new Pipers delivered, were delivered with ADF equipment installed either at factory level or at distributor level prior to delivery. Likewise, on Cess-

na and Beech equipment, it appears that new ADF equipment was delivered with the new aircraft in over 80 per cent of the cases. The electronic shop reported a high percentage of new installation work completed during the period of time with relation to new ADF equipment going into both older aircraft and some of the new models which were originally delivered to owners without ADF equipment. This fact, coupled with the fact that Montana is still the ranking number one owner of "business aircraft" per capita in the United States, clearly points up the fact that our owners are still using much low frequency ADF equipment.

Obviously, in the use of ADF equipment, the most dependable facility is still the old L four course range, or those which have recently been converted to "H" markers.

I spoke earlier of a recent experience of mine that pointed up the fallacy of depending on the standard broadcast industry for navigational purposes. The fact is that with our better class of equipment, flying at higher elevations and receiving on ADF over a working range of 400 to 500 miles total, clearly proves that an aircraft can be within 200 miles of two standard broadcast stations operating upon the same frequency even though the two standard broadcast stations themselves do not interfere with each others advertising markets. It has often been the practice of the Federal Communications Commission to license two such stations, one of which may be situated in a large community, and one in a relatively small community for identical daytime power. However, as these stations move from daytime broadcasts to their night market, their license may require that the small station reduce its power while at the same time the larger station may be authorized to increase power.

This, of course, as you well know, causes ADF needles to do various things, even though your known position is closer to the lower powered station.

I believe this should really make it clearly understandable why our pilots on both IFR and VFR operations and for both the sake of convenience and necessity, still depend for an extensively used ADF operation on the L/MF homers, with fre-

quent identification and no operating power changes. We therefore, respectfully request that the proposal for decommissioning the above mentioned three facilities be withdrawn.

Very sincerely yours,
Charles A. Lynch,
Director
Montana Aeronautics
Commission



February 19, 1964—Helena—Bids will be opened at 10 A.M. at the State Capitol Building on the West Yellowstone Administration Building.

February 19, 1964—Helena—Montana Aeronautics Commission monthly meeting.

February 20, 1964—Idaho Falls, Idaho—Joint annual convention of the Idaho and Montana Aviation Trades Association.

February 24, 1964—Pendleton, Oregon—Northwest States Directors meeting.

February 28, 1964—Helena—KLM Royal Dutch Airlines DC-7 will pick up between 81 and 87 passengers in Helena for a ski trip to the Netherlands, Germany, France, Holland and Ireland. (Watch next month's Newsletter for story.)

February 29, 1964—Helena—Closing date set for all Montana Pilots wishing to be on '64 mailing list, to register.

March 2 through 11—Great Falls—Third Montana Flight Instructors Refresher Course.

March 10—Washington, D. C.—NASAO—Winter Board Meeting.

May 14, 15 and 16—Bozeman—National Intercollegiate Flying Association Meet.

Spring 1964—Billings—Montana Pilot's Association Annual Convention "Montana Centennial" to be the theme—Mark Your Calendar! Watch for further announcements.

DON'T forget the time-honored 180° method of survival.

NORTHWEST AVIATION BUSINESSMEN TO MEET

The annual joint convention of the Idaho and Montana Aviation Trades Association will be held February 20 through 22, at the Stardust, in Idaho Falls, Idaho.

Jack R. Hughes, president of the Montana group and Bob H. Fogg, president of the Idaho group, have invited all aviation operators and aviation enthusiasts from Idaho, Montana, Wyoming, Utah, Oregon and Washington. "What's To Be New With You" will be the theme of this '64 convention.

Discussion topics will pertain to what is new in: Aircraft Sales and Service techniques; industrial and agricultural flight contracts; aircraft taxation, finance and insurance; State and Federal regulatory policies.

Operational safety subjects will include the handling of toxic materials, physiological and psychological aspects of airmanship.

Featured speakers and panelists will include:

Mr. Robert V. Reynolds, Deputy Assistant Administrator, Office of Federal Aviation Affairs, Federal Aviation Agency.

Mr. Monte Pierce, National Air Officer, U. S. Forest Service.

Mr. James W. Franks, Chief Protection Specialist, U. S. Bureau of Land Management.

Mr. Stuart W. Turner, Consulting Agrologist.

Mr. Joseph H. Tippetts, Western Regional Director, Federal Aviation Agency.

Dr. Paul T. Smith, Chief of Biochemistry, Federal Aviation Agency Aeromedical Center.

Mr. R. E. Romack, Certified Public Accountant.

State Aeronautics Directors participating:

Mr. Chet Moulton, Idaho.

Mr. Charles A. Lynch, Montana.

Mr. Harlon W. Bement, Utah.

Mr. Marvin W. Stevenson, Wyoming.

Representatives from the Small Business Administration, insurance companies, and aircraft manufacturers are also programmed.

New model aircraft will be shown and demonstrated during the convention at Fanning Field. The latest developments in aircraft components, radios, and accessories will be displayed at the Stardust.

Additional events include a meeting of the Northwest Aviation Operators Council with Forrest Taylor, Seattle, Washington, presiding. The annual Idaho Safe Pilot Awards banquet, sponsored jointly by the Idaho Falls Chamber of Commerce, the Idaho Department of Aeronautics, and the Idaho Aviation Trades Association, will be held the evening of February 22.

Reservations, or additional information, may be obtained from H. "Pete" Hill, convention chairman, c/o Fanning Field, Idaho Falls, Idaho.

COMMISSION MEETS IN GREAT FALLS

The Montana Aeronautics Commission held its January meeting in Great Falls on January 8.

Commissioner Ted Cogswell of Great Falls arranged for the Commission members and members of the Montana Aeronautics Commission staff to have a conducted tour of the ADC Great Falls SAGE Direction Center on the afternoon of the 7th.

The tour of the Center was undoubtedly one of the most interesting the group could have had, the opportunity to witness and all thoroughly enjoyed the afternoon. For the majority of the group it was a completely new experience.

The group was escorted by Mr. Roy Olson, Watch Supervisor and Mr. Glenn Kittleson, Facilities Instructor Supervisor. After a short explanatory briefing, the group was shown through the Console Control Room where the Console viewing screens and the all over operation were explained by the controllers and questions of the group were answered.

Our sincere thanks are extended to Mr. Charles Irwin, Chief of the Center, to Mr. Olson, Mr. Kittleson and to the Controllers.

After completing the tour of the SAGE center, several members of the group that had not previously seen the RAPCON operation had the opportunity to have the "full tour." The RAPCON Center was certainly enjoyed and our "thanks" go to Mr. Loren Foot, Chief of the RAPCON Center and Mr. Arthur Corwin, Supervisory Air Traffic Control Specialist.

CENTENNIAL FLY-IN

**By Jack Wilson
Safety and Education Officer**

Who the heck wants to fly to Minneapolis to see the Boston Red Sox and the Minneapolis Twins play two baseball games on the 5th and 6th of June? Every pilot in Montana, we hope!

Mr. Claude Erickson of Livingston, Montana, had the idea, and has done the preliminary coordination with the Minneapolis Twins Baseball Club, checked on hotel accommodations, and received the enthusiastic cooperation from the Minneapolis Chamber of Commerce concerning a "fly-in" to Minneapolis for the games on June 5 and 6. It is the consensus of everyone contacted so far that this will be an excellent means of publicizing Montana's Centennial year as well as publicity for Montana Aviation in general, and we wholeheartedly agree that this is "a chance of a lifetime."

One big feature is that the cost is not prohibitive. The tentative costs are as follows: Excellent box seats per game, \$3.00 a ticket; hotel rooms are \$10.00 singles and \$15.00 doubles; bus transportation has been arranged and the cost from Flying Cloud Airport to the Radisson Hotel will be \$24.00 for a 51 passenger bus. Round-trip bus fare between the Radisson Hotel and Metropolitan Stadium (Friday evening and Saturday afternoon) will be \$50.00 per bus. Bus waiting time at Flying Cloud will be \$2.00 per half hour.

The Minneapolis Chamber of Commerce will sponsor a buffet luncheon in the Metropolitan Stadium's Private Club on Saturday, June 6.

The Metropolitan Airport's Commission has okayed the use of Flying Cloud Airport for arrival Friday afternoon June 4, and departure Sunday morning, June 7. The Minnesota Aviation Trades Association has very generously extended their full cooperation. They have a weekly aviation show on WCCO Television which will help considerably in publicizing the "fly-in."

So, let's talk it up! Let your particular organization know if you are interested in participating. The Montana Aeronautics Commission is enthusiastically supporting this event and will welcome comments and suggestions to make it a success.

Montana Aeronautics Commission

will be sending questionnaires to the pilots of Montana at a later date to find how many plan to attend. When you are queried, please return your answers as soon as possible.

THIRD MONTANA FLIGHT INSTRUCTORS REFRESHER COURSE TO BE HELD

The Montana Aviation Trades Association and The Montana Aeronautics Commission will again jointly sponsor a Montana Flight Instructors' Refresher Course. The course will be conducted in Great Falls, March 2nd through March 11th. The objective of the course is to refresh flight instructors in the procedures and methods of flight instruction.

The trainees, selected from active flight instructors throughout the state of Montana, will receive instruction in Air Traffic Control Procedures, Flight Maneuvers, Instruments, Weather and the Psychology of Training.



Loren Foot, Chief of RAPCON, Great Falls and FAA area coordinator will be an instructor on the MAC flight instructor refresher course for the third year.

Instruction will be provided by experts from the Federal Aviation Agency, The U. S. Weather Bureau and former graduates of the 1962 and the 1963 Montana courses.

Actual flight instruction will be conducted at the Great Falls International Airport and Ground School courses will be conducted in the meeting rooms at the O'Haire Manor.

Homer Holman will be MATA Coordinator and Jack Wilson, Safety and Education Officer for MAC, will be Course Manager.

Applications are available from local General Aviation Operators or contact the Montana Aeronautics Commission. Completed applications are to be filled out in duplicate: 1 copy to Homer Holman, P. O. Box 2228, Great Falls and 1 copy to MAC, P. O. Box 1698, Helena.

Helena Joint City-County Airport Meeting

The Airport Board held its monthly meeting January 13, 1964. Board members present were H. C. Schuyler, A. C. Kuenning, Norman Lieberg, Joe Flynn, Reese Smelser and Airport Manager Hugh Kelleher.

Chairman Schuyler was to write to the Federal Aviation Agency, to Mr. Najeeb Halaby, Administrator to protest decommissioning of approximately 35 airway light beacons in the State of Montana.

Mr. Schuyler also reminded the Board of the bid opening for the new Federal Aviation Agency office building which will be held January 30, at the Civic Center Building. The new FAA office building will house the District Airport Engineer's office, General Aviation District office and System Maintenance Sector office, all agencies of the FAA. This building will be 98' x 40', or a gross area of 3,920 square feet. It will be located approximately 60 feet west of the present Terminal Building.

Mr. Schuyler also said the Board would begin engineering on the new proposed general aviation apron. The approximate size of the apron is 250 x 400 feet and is to be constructed in the general area of Morrison Flying Service.

Hugh Kelleher, Airport Manager, reported to the Board on airline and aircraft movements for the year 1963. 1963 showed a big increase in airline passenger movements at 14,867 over 1962 at 12,467.

Kelleher said even though there was a decrease in the total aircraft movements in 1963 at 31,141 to 31,361 in 1962, this was not a true picture when the airport experienced an increase of itinerant movement of aircraft from 24,971, in 1962 to 25,117 in 1963. This would mean that approximately 37,175 passengers, including pilots in itinerant aircraft used the airport through aviation. This is an estimate figuring two and one-half persons per itinerant aircraft.

The Manager also reported to the Board on the new snow plow and sander and said that it lived up to his expectations and was a vital link in keeping the airport open and clear of snow during the last heavy snow.

A CASE IN POINT

By Kenneth D. Beyer
Commission Attorney

Use of tape recordings of conversations on the aeronautical frequencies does not violate the federal prohibition against wiretapping, and accordingly may be used in evidence against the airman.

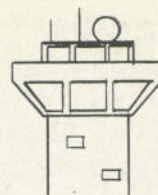
A pilot flying VFR was proceeding to Detroit, Michigan, and stopped for refueling at Piqua, Ohio. The U. S. Weather Station indicated that Detroit had a broken cloud ceiling of 2500 feet. Detroit was approximately 40 to 50 minutes flying time from Piqua. Enroute, the pilot encountered a weather change to complete overcast. The pilot continued VFR "on top" to Detroit and then spent one hour searching for a hole in the cloud cover. Finding no hole, the pilot radioed that he did not have an instrument ticket, and that he did not have sufficient fuel to fly elsewhere. Approach control arranged for a commercial airliner to rendezvous with the pilot and to guide him in using radio contact. The tape recording of the conversation between the pilot and the airliner constituted the majority of the evidence against the pilot.

On appeal from an order of the Administrator, the hearing examiner found the pilot guilty of violating Sections 43.65 and 60.12 CAR.

The pilot appealed to the United States Court of Appeals claiming that the tape recording of his conversations with the approach control and the airliner were illegally used in evidence against him.

The court held that the prohibition against wiretapping (Section 605, Title 47, United States Code) does not apply to the Radio Frequencies assigned to aeronautical use and therefore it was permissible to use the tape recordings in evidence against the airman. *Brown vs. C.A.B., U.S.C.A., 6th, November 21, 1963.*

Opportunity often knocks, but it has never been known to turn the knob and walk in.



TOWER OPERATIONS

MONTANA TOWER-CONTROLLED AIRPORT OPERATIONS

DECEMBER 1963

	Total Operations	Instrument Operations
Billings	4598	696
Great Falls	5036	733
Missoula	838	248
Helena	1941	148

CONGRATULATIONS!



CERTIFICATES ISSUED RECENTLY TO MONTANA FLYERS

Ward, Dick B., Butte—Student
Rothwell, John A., Great Falls—Student
Treichel, Sandra G., Missoula—Student
Mooney, John M., Butte—Advanced Ground Instructor
Fowler, Gordon A., Great Falls—Student
Macklin, James E., Great Falls—Student
Swanson, Robert L., Great Falls—Student
Legare, Melvin H., Great Falls—Student
Dunlop, William E., Helena—Private
Monger, Joseph Wm., Missoula—Student
Whitt, Sidney G., Keven—Private
Sullivan, Barry J., Malmstrom AFB—Student
Amsden, Bruce L., Gallatin Gateway—Student
Erban, Steven E., Belgrade—Student
O'Brien, John V., Great Falls—Student
Wenzel, Wm. J., Great Falls—Student
Westlake, Edward H., Bozeman—Student
Butler, Cleo S., Bozeman—Student
Barton, Charles H., Bigfork—Student
Lynn, Robert E., Polson—Student
Walden, Russel R., Great Falls—Private

(Continued on Page 11, Col. 3)

CONGRATULATIONS!

Two young Montana girls are to be congratulated on their recent solo flights! The girls, both 16 years of age, soloed in December '63. Elizabeth Timm, daughter of Mr. and Mrs. Phil Timm (Timm Aero Service of Polson) and Alison Newby, daughter of Mr. and Mrs. Al Newby (Flight Line Inc. of Belgrade) lives have almost an unbelievable amount of similarity, for in addition to their age and the fact they soloed a few weeks apart—both are daughters of well known Montana General Aviation Operators—both have older brothers who soloed at similar ages and presently hold commercial licenses—both girls, in addition to their love of flying, are extremely talented in the musical field and are at the present time taking voice lessons. Another bit of coincidence is the fact that their fathers, Phil and Al, we acquainted years ago in Wyoming (their flying at this time consisted of flying an hour for each four years they worked on their planes.)



Elizabeth Timm

Elizabeth (Beth) Timm was 16 years old on May 30, 1963. She passed her private written exam in November and made her solo flight on December 14, in a Tri-Pacer. Beth, an active helper around the airport, from gasing planes to helping Phil in the shop. Not only proficient at fabric work and running a rivet gun, she can capably tear down a C-85 engine, leaving it clean and ready for Phil to start a major overhaul.

Beth is a talented dancer and has taught ballet to Polson youngsters for the past 4 years, including producing a spring dance review annually. She is presently taking voice from Professor John Lester at MSU.

Beth is now looking forward to flying herself back and forth for her vocal lessons in the very near future.



Alison Newby

Alison Newby was 16 years old on August 25, 1963. Alison soloed on December 30, in a Cessna 150 for which she was presented with the Cessna solo trophy by her proud father, Al Newby. At the time Alison soloed she had approximately 7 hours XC dual time, which she received on family cross-country flights and 4½ local dual—presently she has a total of 15 hours time.

In addition to Alison's interest in aviation she is a very busy gal in school and social activities, including holding of an office in Jobs Daughters, vice president in the Future Homemakers of America, active on the school newspaper and a junior class officer at her high school.

Alison, accomplished on the piano, is presently taking voice instruction in Bozeman.

Now that Phil and Al have "the whole family flying" they can give the following advice to all flight operators — "Raise your own students!"

Seriously . . . here are certainly two fine examples of family aviation at its best!

TRAFFIC DATA AT 'USE IT OR LOSE IT' CITIES

Authorized Point	Average Daily		% of Increase
	12 Months Ended Sept. 30, 1962	12 Months Ended Sept. 30, 1963	
Billings	24.97	31.31	25.4%
Glasgow	3.59	3.91	8.9%
Glendive	1.32	1.59	20.5%
Great Falls	5.14	8.23	60%
Hayre	1.35	1.78	31.9%
Lewistown	1.68	2.23	32.6%
Miles City	2.06	2.49	20.9%
Sidney	2.26	3.55	57.5%
Wolf Point	1.08	1.80	66.7%

FAA INVITES INDUSTRY PROPOSALS FOR DESIGN OF A NEW SHORT-HAUL TRANSPORT

The Federal Aviation Agency has invited United States airframe manufacturers to submit proposals for the design of a new passenger cargo aircraft for the short-haul market.

This market presently is dominated by the DC-3, an aircraft fast approaching its 30th birthday.

The manufacturer's proposals will be used as the basis for selecting a maximum of three contractors to prepare detailed design specification for an aircraft which would be suitable for the U. S. local service airlines as well as other short-haul passenger-cargo operations throughout the world. The contracts will be limited to \$100,000 each.

The contractors are expected to produce a design which also will meet the needs of several Government agencies for mission support aircraft. FAA estimates that the Government might procure approximately 100 such aircraft "subject to the availability of funds, the aircraft cost, and the suitability of one design to meet several distinct requirements."

FAA also will sponsor an economic study of the potential market for a new short-haul transport. Current estimates of the market range from 700 aircraft to more than 1,000. Award of the contract to conduct this analysis will be announced at an early date.

Design objectives for a short-haul transport "embodying the highest practicable degree of safety, reliability and economy of operation" are outlined in a Request for Proposals (RFP) just released to the aviation industry by FAA. They call for an aircraft having the following general characteristics:

- A passenger capacity from 14 to 30. Manufacturers may submit proposals on more than one size aircraft within this range, but each must be filed separately. The competitive advantage of each design will be judged, in part, by its direct operating cost per aircraft mile.

- A permanent revenue cargo capacity of 500 pounds will be provided. Easy and rapid conversion of approximately half of the passenger

space to permit transport of additional revenue cargo also is required.

- Design features will permit the pilot and co-pilot to perform all of the necessary passenger safety functions now handled by the cabin attendant.

- Range will be at least 600 miles with provision for optional added tankage.

- Aircraft will be able to operate from airports with 3,000 foot runways.

- A stall speed of 60 knots and a cruising speed of 200 knots is desirable.

A draft of the RFP was circulated for industry comment in October and drew more than 40 replies. A large percentage of the replies indicated great interest in the project.

Proposals based on the RFP are due by May 15, 1964. They must include an outline of the preliminary aircraft design with sufficient detail indicated by drawings and technical and economic data to permit a full evaluation by both the Government and the local service airlines.

Response to the RFP is not limited to fixed-wing aircraft. V/STOL (Vertical and Short Take Off and Landing) aircraft also will be considered provided they can compete with fixed-wing models on the basis of safety, reliability, initial cost, and economy of operation.

Selection of contractors will be made by FAA with the advice of the local service airlines and the technical assistance of other Government agencies.

Detailed design specifications will be due within four months of the date of contract and will include mock-ups and cost data.

Project Manager is Robert B. Meyersburg, Chief of the Aircraft Division in FAA's Aircraft Development Service.

FOR SALE: 1961 Piper Colt full panel LF-HF Radio, wheel fairing, total time 388 hrs., Price \$4500. W. J. Tope, Tope's Air Spray, Fort Benton, Montana, Phone 190.

FOR SALE: Navion 91159—205 HP, 120 hrs. on new engine, Omniscope, L/F, Remote Compass, Southwind Heater, 300 hours since prop overhaul, new paint, ship in excellent condition, \$5,500.00. Roy Heckert, 210 Agnes, Missoula, Montana, Phone 549-4603.

FOR SALE: WIND DAMAGED AERONCA 7AC—good 65 Continental engine, 100 hrs. since smoh, write to the Helena School of Aeronautics, c/o Ken Wendland, Phone 442-0060.

HOW TO GET THE MOST FROM A PILOT WEATHER BRIEFING

PART II

By Harry Elser

FLIGHT SERVICES QUALITY CONTROL OFFICER

WBAS, Great Falls

We began answering the above question with a discussion of "How to Ask for a Weather Briefing", in last October's Newsletter. That discussion was intended to emphasize the need to furnish complete **background information** about your flight to the briefer during your first contact. If the logic behind this has been accepted, we are ready to consider other items to look for in getting the most from your weather briefing. These items include: **Synoptic Weather Patterns, Current Weather, Forecast and Hazardous Weather, Winds Aloft and Pireps.**

In the discussion we treat each item as a separate or distinct step in a briefing; however, you would not likely be aware of such step by step procedure in an actual case. The briefer is trained to tie all items, forecast and current, into a continuous, logical story. The background information you provide plus the prevailing weather determines how the briefer assembles and presents the weather intelligence essential to your particular flight. Such things as pilot experience, aircraft capability and duration of flight are obvious factors the briefer must consider. Not so obvious is how recently the pilot may have checked the weather. If it has been several days since he has been flying he'll want the full treatment whereas the pilot enroute on a cross country trip will be interested in recent developments only. In good weather a briefing may consist of a simple statement to this effect along with the latest destination report, the terminal forecast at ETA and the winds aloft. In marginal or bad weather all ingredients become important.

The **Synoptic Pattern**, indicated by the weather map provides the base on which to build a mental picture of the weather. This gives the location of significant fronts and pressure systems. Over telephone or radio the briefer will probably devote only a sentence or two to this item. During "in person" briefings you may be shown two or three maps in sequence to help you visualize the mo-

tion of the weather systems. This alerts you to the direction in which to keep a "weather eye" peeled once in flight.

Current Weather, or sequence reports, will be used to bring the synoptic weather picture into sharp focus by providing specific values of ceiling, visibility, etc. The pilot should keep in mind the distinction between weather **reports** and weather **forecasts**. Reports describe what is happening now while forecasts represent professional advice on what is expected to happen. Decisions based on reports alone can place the pilot in the position of having to do a 180 or, trying to sneak under the weather. The latter practice has proved dangerous enough to be labeled one of the major causes of general aviation accidents. Since sequence reports play such an important role in our aviation weather service it is well to keep in mind some of their weaknesses: (1) In a fast-moving or rapidly changing situation the value of a particular report fades rapidly and the teletype circuits are usually unable to handle all "special" reports as changes occur; (2) In our Montana mountains the reports sometimes fail to give an accurate indication of what is "in between", (even with diligent use of the remarks section); (3) Sequence reports are scientific observations made by professionally trained people but they are taken at a fixed location with the weather moving past the station at relatively slow speeds. Pilots, however, view the same conditions from a moving position and at much greater speed. The perspective is entirely different; this cannot be over-emphasized when evaluating reports on the ground or when comparing what you experience in flight with what you were told during the briefing.

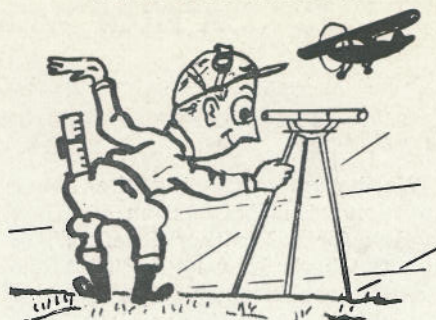
Available **Pireps** complete the current weather and we are ready to consider the **Forecast Weather**. Expected trends or changes in the weather are reflected in the area and terminal forecasts. The briefer blends these forecasts with current weather

to give the most accurate advice possible for your flight. He is often required to make adjustments in the light of reports received after the forecasts were released. When such adjustments amount to significant trends, or unexpected changes in the weather pattern develop, amended terminal forecasts and in-flight advisories are issued by the forecast office. Both are used by the briefer to keep on top of the situation. In addition, in-flight advisories deal with **Hazardous Weather** such as thunderstorms, IFR ceilings and visibilities, and moderate or greater turbulence or icing. These advisories are broadcast by radio for the benefit of those pilots already in the air. And remember, once in the air you become your own best briefer. Your ability to recognize signs of changing weather while in flight plus tentative, alternate courses of action considered during the ground briefing can save critical decision time in the air later.

The decision to go or not to go, should have been made by this stage of the briefing. If it is to go, the final step will be **Winds Aloft** information. In view of the combination of radio navigation and pilotage in common use today briefers are encouraged to give wind information at flight level, in general terms such as, westerly—15 knots. If you desire to prepare a flight log you may find it necessary to request winds in more detail. A last reference to **Pireps** will usually be made at the end of the briefing, not only to provide latest reported flight conditions but to encourage you to originate **Pireps** during your flight.

Each flight is a special problem for the briefer and he can do his best job of briefing when adequate background information is provided. A complete pilot weather briefing can be divided into various parts for purposes of discussion but in actual practice the efficient briefer blends all items into a concise package representing the best professional weather advice available while taking as little of your time as possible. As a pilot it will be to your advantage to become familiar with the ingredients that go into a good briefing so that you will be in the best possible position to evaluate the weather situation and make sound flight decisions.

AIRPORT NOTES



By James H. Monger
Assistant Director, Airports

Bozeman GAU—The City of Bozeman and the Gallatin County Airport Board have made a request to the Montana Aeronautics Commission for a preliminary site and feasibility survey for a general aviation utility airport adjacent to the city of Bozeman. The report will be available in mid-1964.

State Airport Plan—The airport division is presently drafting up the proposed airport projects for the next five years. This report will contain the name of each existing airport in the state and the locations where new airports are contemplated. It will also contain the airport type, the number of based aircraft at the present time, and the estimated based aircraft for 1969; the present airport mill levy on the city and county basis and the recommended development for each location with the estimated costs. In order to get an accurate report, we will be requesting a great deal of information from each airport board. One vital question that will be asked of each airport will be "**What development do you plan for on your airport in the next five years?**" This information will be most valuable to the Montana Aeronautics Commission because of our encumbered funds within our loan program. If a city or county can inform us now about a future loan that they would desire we will then be able to program it and earmark it thereby giving them more assurance that the funds will be available at the time they need the loan. If we can predict the large loans and properly program them to fit the needs for a given year there will be less of a possibility of the Montana Aeronautics Commission making a waiting list for your airport. A questionnaire will be mailed

to each airport manager and a 100 per cent return on this survey will benefit everyone.

Fairfield—A preliminary survey and master plan is now being prepared for Chouteau County, and the town of Fairfield for the future development of the Fairfield Airport.

Airport Statistics—Montana has 118 public airports. In addition there are an estimated three hundred fifty (350) flying farmers airstrips. There are 36 paved public airports, 47 airports with lights, 49 with beacons, and 15 air carrier airports.

Libby—An airport promotion meeting will be held in Libby on February 10. It is hoped that the city and Lincoln County will be able to sponsor a project that will provide that area with a new airport. The existing facility is inadequate and the terrain prevents any further development on that site.

Helena—The joint City-County Airport Board has recently purchased a new snow plow that has a hydraulic reversible blade with a wing plow attached. The truck has an automatic sanding device and a two-way radio. The Montana Aeronautics Commission has loaned the airport board \$10,000 to aid in the financing of the purchase of the high speed snow plow.



Helena Airport's new snow plow.

Yellowstone State Airport Administration Building—Advertisement for bids is now underway for the construction of the Administration Building. Funds for this project have been provided by the Department of Interior National Park Service and the construction cost is estimated at \$190,000. The architectural firm that designed the building is Knight and Van Teylingen of Great Falls, Montana. The structure will consist of natural stone, steel beams, and glass curtain walls. The design is very much in keeping with the surrounding area. The building will contain



Architect's sketch of the new West Yellowstone Administration Building.

two airline offices, one ground transportation office, a flight operators office, a passenger lobby, a pilots lounge, restroom and concession facilities, and a lunch counter area. Construction will start as soon as weather permits and the contract calls for a completion date no later than April 15, 1965. Also included in this contract will be a separate maintenance building for the airport itself. Funds for the maintenance building have been provided by the FAA and the National Park Service.

Bids will be opened at the State Capitol Building at 10 a.m. on February 19, 1964.

AL WARD FLYING SCHOLARSHIP CONTEST

The Al Ward flying scholarship contest is open to boys and girls aged 15-19 and is sponsored by the International Flying Farmers for those whose parents are members of Flying Farmers, Inc. or are actively engaged in farming or ranching. Further details may be obtained from the Montana Aeronautics Commission, Helena.

NEW PUBLICATION AVAILABLE

1963 United States Aircraft, Spacecraft and Missiles, a new publication, is available on request from Aviation Education Supervisor, Mary Jo Janey, Department of Public Instruction, Helena.

BEAR IN MIND — If all your dreams don't come true, don't fret! Remember — your nightmares don't either!

AIRPORT ADVISORY SERVICE

By The FSS

Certain Flight Service Stations of the FAA provide Airport Advisory Service (AAS). It is necessary that pilots using airports at such locations adhere to the regulation. These locations are appropriately depicted on Sectional charts (or World if no Sectional covers). They are also identified in the ANRA section of the AIRGI.

The following is a quote of the FAR (new), paragraphs a and b of 91.89 "Operation at Airports Without Control Towers

(a) Operation at airports without control towers. Each person operating an aircraft to or from an airport not described in 91.87 shall comply with the applicable provisions of this section.

(b) Communications with FAA Flight Service Stations. If an operative FAA Flight Service Station is located at the airport (and is so depicted on the current appropriate Sectional Aeronautical Chart of the U. S. Coast and Geodetic Survey, or, in the case of an area not so charted, on the current World Aeronautical Chart), each pilot shall, unless otherwise authorized or required by ATC, while within a 5 statute mile radius of that airport—

(1) If the aircraft's radio equipment so allows, maintain two-way radio communications between the aircraft and the station; or

(2) If the aircraft's radio equipment allows only reception from the station, monitor the station's frequency.

A pilot operating under IFR may satisfy the requirements of this paragraph by maintaining a listening watch on the last assigned pilot-controller frequency until otherwise specified by ATC."

In Montana, the following FSS's are properly depicted and provide AAS: Butte, Bozeman, Cut Bank, Dillon, Lewistown, Livingston, Helena, and Missoula (the latter two during hours tower operation is closed.)

This service and specific part of the regulation was instigated to benefit pilots and to enhance the safety of terminal operations at non-controlled airports.

One of the FSS's recently had the following events occur — weather — ceiling 3 or 4 thousand feet, visibility 3 miles, light snow, snow obscuring surrounding mountains—two Mooney aircraft call in and are furnished AAS, one Mooney takes off, about that time a Comanche was observed taking off on a different runway—no radio contact. The other Mooney takes off. An air carrier DC6B calls in and taxis out for an IFR departure. Then both Mooneys call from different locations advising they are returning to the field due to restricted visibility aloft. Numerous attempts are made to make contact with the Comanche to ascertain his position—no response. The DC6B pilot, extremely interested in the whereabouts of the Comanche taxis back to the ramp and holds up his flight.

The Comanche pilot apparently violated the regulation as he did not establish and maintain radio contact when operating his aircraft from the airport as required. It is assumed the pilot had functioning radio equipment, since it was used during his landing a few days earlier.

Other recent incidents within the region have indicated to officials of the Agency that pilot failure to adhere to the regulation is a definite impairment on the quality of airport advisory service. The regulation has now been in effect quite generally for approximately two years.

Certain steps are being taken to improve the service, and to bring to pilots attention the availability of AAS and the necessity of adhering to the regulation.

Where obvious disregard or non-compliance with the regulation is

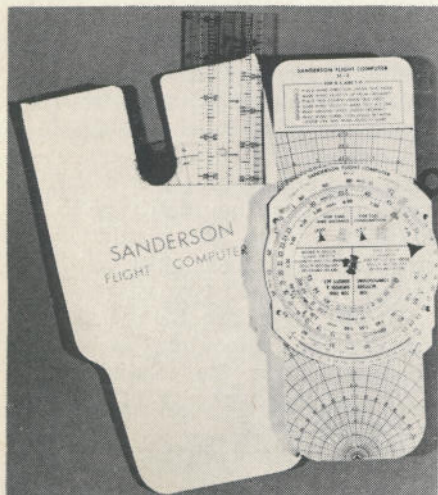
evident, agency personnel have been instructed to prepare an incident report against the pilot.

To avoid any possibility of violating this regulation, it is suggested that pilots of radio equipped aircraft make it a practice of always contacting the Flight Service Station if there is one on the airport from which they are operating.

SANDERSON INTRODUCES NEW SIMPLIFIED FLIGHT NAVIGATION EQUIPMENT

New simplified flight navigation equipment which will benefit veteran and student pilots alike is the result of new innovations applied to the standard and proven sliding grid computers and flight plotters by Sanderson Films, Inc., leader in aviation ground school training program.

The new Sanderson flight computer is known as a "built-in-memory" computer because all memory work previously needed to solve problems is eliminated by the simplified instructions taken from the Sanderson training manual and printed on the computer. Time and distance, fuel consumption, altitude computations, true airspeed and density altitude all are set by easy steps on the face. Complete step-by-step instruction for solving wind problems and finding compass headings are printed on the wind side of the computer. Benefit to the student is a relaxing of those tense moments on the test or cross-country. Benefit to the veteran pilot, who also sometimes forgets the formulas, is a clear, easy to read computer with the information "in hand" if he needs it.



The computers are available in regular school size or pocket size and in either plastic or metal. They are priced at \$9.00 and \$10.00 for the small and large plastic, and \$12.00 and \$14.00 for the small and large aluminum.

The plotter incorporates a simple device which always assures it being face up, therefore eliminating any confusion in reading it. Also, it has a completely clear face eliminating any "covered up" checkpoints. The plotters come in either school size at \$2.40 or in pocket size at \$1.75.

Both computer and plotter sets are available in attractive vinyl cases that match the Sanderson Course books.



FEDERAL AVIATION AGENCY SCHEDULED ITINERARY LISTING

Airport	Feb.	Mar.
Bozeman (Gallatin Field)	13	12
Culbertson	5	
Glasgow		18
Glendive		4
Great Falls	6	5
(International)		
Lewistown		25
Miles City	19	
Missoula	20	19
(Missoula County)		

FOR SALE: Late 1948 Stinson S.W.—963 total A&E—387 on major including all heavy Jugs. Fabric, all high green with late-type elastic finish in metallic green and beige. (Cost over \$500.00). Complete custom shock mounted I.F.R. panel with late type gyros. Including carb. throat temp., probe gauge and elec. compass; (over \$700.00). New V.H.T.—Narco omni—12 channel radio—New 6 ply nylon tires and tubes, late type 180 wheels, clips and blocks—All bulletins compiled—licensed 'till Sept. '64. Picture on request. A spotless ship. Price: \$3,350.00—contact: John Bragg, Livingston, Montana, Phone 222-0057.

FOR SALE: "HEY, I'VE GOT AIRPLANES FOR SALE. SEE ME!" Mendel Flying Service, Malta, Montana.

ATTENTION REGISTERED PILOTS

The 1964 Montana Airport Directory will soon be "off the press" and will be mailed immediately to all pilots registered with the Montana Aeronautics Commission for 1964.

AGRICULTURE AIRCRAFT REGISTRATION PROCEDURES

Regulations of the Montana Aeronautics Commission require that all aircraft used in the distribution of chemicals, seeds or baits be registered annually with the Aeronautics Commission.

Requirements for registration of each agriculture aircraft are:

1. Aircraft will currently be covered by Public Liability and Property Damage insurance in the amount of \$25,000/\$50,000 and \$25,000.
2. Certificate of Waiver or Authorization Form FAA 663.
3. Registration Certificate FAA Form ACA 500 will be in order and in the aircraft.
4. Certificate of Air Worthiness FAA Form ACA 1362 will be current and in the aircraft.
5. Current weight and balance as required will be in the aircraft.
6. Operations Limitation FAA Form 309 or FAA Approved Manual will be in the aircraft.

Acceptable evidence of insurance will be a letter from an authorized insurance company giving dates of coverage, amounts thereof, listing of aircraft covered and the owner's name. The insurance company must include a statement that it will promptly notify the Montana Aeronautics Commission of any change in or cancellation of the policy. The above letter must be in the office of the Aeronautics Commission before an agriculture plate can be issued.

After receiving the plate the operator must attach it to the appropriate aircraft.

Operating aircraft equipped for spraying but not meeting the six requirements listed are in violation. If you have any questions in regard to your Agricultural Aircraft Registration, please write to the Montana Aeronautics Commission, P. O. Box 1698, Helena, Montana.

REMEMBER: There is no charge for aircraft registration in Montana but it is mandatory by state law to have your Ag. aircraft registered and the current plate attached to your aircraft whether you are operating privately or commercially in a spray operation.

DON'T be lured into pressing on "just a little farther."

KNOW YOUR COMMISSION



(Left to Right)—Isabel Bryant, Joyce McKenzie and Joan DeBorde.

Mrs. Isabel L. Bryant — Montana Aeronautics Commission Bookkeeper. Isabel was born in Mandan, North Dakota, where she attended grade and high school. Prior to her marriage to C. T. Bryant, Isabel attended North Dakota State College. Isabel was employed by the Columbia Paint Company of Helena as bookkeeper for the nine years previous to March of 1963, when she came on the staff of the Montana Aeronautics Commission. Isabel tells us she became a bookkeeper for the one reason anyone should be a bookkeeper — she loves it!

Cap Bryant is a well known Deputy Sheriff in the Helena area. The Bryants have two sons, Robert an engineer for Boeing Aircraft Corporation in Seattle; Charles, employed as an accountant for the Permanente Cement Co., Helena, and one daughter, Becky, a student at Montana State College at Bozeman. The Bryants make their home in the Helena valley.

Mrs. Joan DeBorde, Secretary — Joan was born and raised in Luton, Bedfordshire, England and attended school and continued on through business school.

Joan met her husband Verne DeBorde while he was serving with the Armed Forces during World War II. Joan joined Verne in the United States shortly after the war.

When the DeBordes moved to Montana, Joan became employed as Secretary to the County Attorney of

Broadwater County and by the Welfare Department of Broadwater County and later worked for a state office in Helena before joining the Montana Aeronautics Commission staff in July, 1963.

Joannie's legal background has been a great asset to the Commission as her duties mainly curtail secretarial work for the Commission Attorney and detailed work for the Airport Division.

Verne manages the Conoco Station at the corner of 11th and Main in Helena.

The DeBorde's have four children: Keith, presently in the Air Force in Texas; Craig, a student at Helena Junior High School; Linda, married and residing in Great Falls, and Brian, a second grade student at Central School.

Miss Joyce McKenzie, Filing Stenographer—Joyce was born and raised in Helena, attended Bryant Grade School and Cathedral High. Joyce attended college at Western Montana College of Education at Dillon. Joyce decided to go into the business world and was employed by the Montana Milk Board for a time before she moved to California and worked for the Oakland Bank of Commerce in California. After leaving the Bay area Joyce visited her sister in Oregon and remained to work for the Credit Union of Weyerhaeuser Company for several months.

Joyce returned to her home state in the fall of '63 and joined the staff

of Montana Aeronautics Commission in November, as filing stenographer.

Fast becoming an aviation enthusiast, Joyce is also interested in art and music, particularly enjoying playing the piano. She resides with her family at 1735 Missoula Street.

CERTIFICATES ISSUED

(Continued from Page 5, Col. 3)

Rickman, Ezra G., Helena—Com.
AMEL DC-3 and Instrument
Hintz, Gerhardt L., Great Falls—
Student
Brewster, John H., Great Falls—T-33
added to Com. AMEL and Instr.
Moore, Ralph E., Livingston—
Private
Johnson, Bud C., Malta—Private
Timm, Elizabeth Ann, Polson—
Student
Billingsley, Samuel R., Great Falls—
Student
Rummel, John A., Helena—Com.
Iverson, Ronald J., Belgrade—
Student
Suckstorff, Robert E., Sidney—
Private
Sullivan, Lee K., Billings—Private
Petrik, Paul Jr., Sidney—Private
Hass, William H., Outlook—Student
Ramsey, Neil Wayne, Billings—
Student
Lalonde, Eugene A., Sidney—Private
Jenkins, Leonard V., Billings—
Private
Madenwald, Kent A., Williston, N. D.
—Student
Sundheim, Orion A., Fairview—
Student
Grovom, Harold N., Sidney—Student
Shipp, Kenneth R., Glasgow—Student
Dascher, Darylne E., Glasgow—
Private
Luderitz, Robert W., Glasgow AFB
—Private
Newnam, Alvin W., Plentywood—
Student
Stannebein, Hans F., Richland—
Student
Sundheim, Judean F., Fairview—
Student
Sundheim, Richard E., Fairview—
Student
Dust, Jerry C., Bighorn—Instr. on
Com.
Leitz, William C., Billings—Student
Mickelsen, Peter D., Lewistown—
Student
Baxter, Max E., Seattle—Private
Voorhees, Thomas A., Billings—
MEL on Com.
Wysel, James Marcus, Lewistown—
Student

Lindgren, Wesley A., Lewistown—
Private
Streeter, Jerry E., Bozeman—Student
Wagnild, Clarence V., Plentywood—
Student
McNees, Kenneth E., Poplar—Flt.
Instr.
Robinson, Francis W., Great Falls—
Student
Huebner, Philip D., Helena—
Airframe Mechanic
Tolle, David V., Butte—Student
Westall, Thomas S., Dillon—Instr.
rating added to Com. ASMEL
Robinson, Denis F., Great Falls—
Student
Steinmetz, Irvin G., Zurich—Private
Santos, Terry R., Great Falls—
Student
Starling, Richard H., Great Falls—
Private
Johnson, Arthur E., Great Falls—
Private

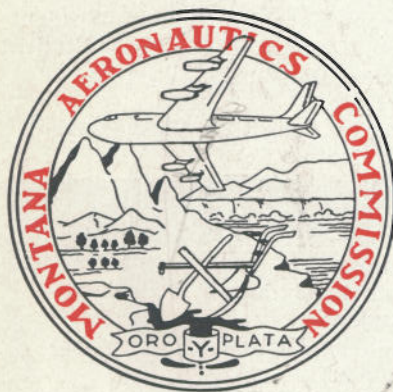
McInnis, Ronald R., Great Falls—
Student
Morrison, Jeffrey B., Helena—Instr.
Ground Instr.
Foster, William H., Great Falls—
Student
Tefft, Alfred E., Great Falls—Student
Sheridan, James L., Butte—Student
Newby, Alison, Belgrade—Student
Olson, Thomas M., Baker—Student
Oscarson, David E., Malta—Private
Mills, Lee C., Helena—AMEL added
to Com.
Mathews, William H., Great Falls—
Private ASEL, limited to Piper PA-
28 aircraft with an approved hand
operated rudder control appliance
Bakken, John L., Helena—Airframe
and Powerplant Mechanic
Wendland, Kenneth N., Helena—
Airframe Mechanic
Wilhelm, Keith R., Helena—
Powerplant Mechanic

Turner, Wayne C., Great Falls—
Student
Rothwell, Ella B., Great Falls—
Student
Babcock, Wayne K., Bozeman—
Private
Willoughby, James S., Bozeman—
Private
Hart, Hubert E. Jr., Bozeman—
Private
Lovelace, Winifred E., Bozeman—
Blue Seal on Private
Winterowd, Robert A., Belgrade—
Instrument Rating
Neal, Margie Ann C., Havre—Student
Stanton, Robert E., Edmonton, Alta.
—Com.
Iverson, Larry C., Ledger—Student
Johnson, Keith P., Butte—Instr.
added to Private
Campbell, David W., Missoula—
Student
Lingscheit, Richard John, Great Falls
—Student

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NATIONAL ASSOCIATION OF STATE AVIATION OFFICIALS

PURPOSE:—"To foster aviation as an industry, as a mode of transportation for persons and property and as an arm of the national defense; to join with the Federal Government and other groups in **research, development, and advancement of aviation**; to develop uniform aviation laws and regulations; and to otherwise encourage co-operation and mutual aid among the several states."

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